From boatanchors@theporch.com Sat Dec 28 12:39:40 1996
From: jlivingston@cix.compulink.co.uk (John Livingston)
Subject: Re: "The Vari-Coil"
Message-ID: <memo.873576@cix.compulink.co.uk>

In-Reply-To: <Pine.SUN.3.91.961227171800.14110A-100000@diamond.sierra.net>
This is the system used in my Collins 180T2 remote tuner - it has a motor driven ceramic drum and an earthed metal tape spool drum which rotate in synchronism. It also has a variable tap mechanism which rotates independently of the main inductance, and in effect provides a roller-coaster type connection. The gearing which drives all of this stuff is awe inspiring.

John Livingston jlivingston@cix.compulink.co.uk
G4FDD G-QRP 431
+44(0)1904 794305 FAX +44(0)1904 657778

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: "Lon W. Cottingham" <k5jv@swweb.net>
Subject: Aligning the R-725 IF
Message-ID: <199612290147.TAA27391@uro.theporch.com>

Greetings All,

Someone asked me to offer some help on aligning the IF of the R-725. I thought it might be better to answer in a general posting than to answer individually.

Let me say from the onset that this is not intended to be "THE WAY" to align the IF. It is a simple, effective way to do the job without external meters or signal generators. It is not intended to replace standard practices or "what the book says". I you are fortunate enough to have a copy of the R-390 (not R-390A) manual TM 11-856, I would suggest that you review the alignment process for the IF that it describes. The two IF modules look almost identical, one has BNC connectors and the other, miniature connectors. The IF frequency of the R-725 is on approximately 455 Khz. I say approximately because, due to slight variances of the internal crystal in the crystal filter, the frequency will vary slightly form 455 Khz. The IF should be aligned as closely as possible to the frequency of this xtal (different in each radio).

How do you determine the exact frequency of this crystal without external equipment? It is easy. Turn on the crystal calibrator, select one

of the IF selectivity positions that use the crystal filter (I use the 0.1
position), and center the crystal calibrator signal in the bandpass using the S-meter. This is a fairly critical tuning adjustment, so do it several times to be sure that you have the signal centered. If you happen to have a VTVM and want to use it, connect it to the DIODE LOAD, terminal 14, on the rear terminal strip. The VTVM can then be used as a reference for peaking the IF cans. That is all there is to it. If the receiver has been on
for twenty to thirty minutes, it will be stable enough that you should not have to re-tune during the alignment process. The receiver can be set to any band during this process.

Now that you have the receiver tuned to the proper frequency, simply tune the IF transformer adjustments for maximum S-meter, or VTVM, indication. I start at the front with T-501 and work my way to the rear to T-505. Then move over to the left and adjust T-506. Repeat this process until you are sure you can get no more S-meter, or VTVM, deflection. That is all there is to it, for the IF. If you find that the AGC is not doing
its
job on very strong broadcast signals, try the following. Tune in strong local
broadcast station (remember to connect a good antenna). Connect your VTVM (you do need it for this one unless you want to do it by ear) to terminal 4 on the rear terminal strip. Be sure the AGC is turned on. Adjust transformer Z503 (the small one at the very back of the IF module) for maximum indication on the VTVM. On the R-390, R-390A, and R-725, the AGC adjustment is the one that I find can benefit more from using an external meter. However you should be able to get very satisfactory results using nothing but your ear if you have tuned in a strong local signal.

I do not know of a manual printed specifically for the R-725. From what I have found out so far, only a manual supplement was published. If you have both the R-390 and the R-390A manuals, you have all you should ever need.

I hope this helps someone just a little. Remember that nowhere is it written that these rigs have to be aligned a certain way. The manuals are only suggestions (usually good ones). The object is to have fun and enjoy your
wonderful old equipment.

73 de Lon, K5JV

From boatanchors@theporch.com Sat Dec 28 12:39:40 1996
From: dr.electron@juno.com (Richard L Paton)
Subject: Another R-482 / URR- 35 Question
Message-ID: <19961227.210035.7407.1.dr.electron@juno.com>

Thanks to all who have helped.
On the rear input/output filter section of this rcv. is a bnc conn.
marked " 50 OHM Scan ".

WHATSITDO?
Rich   dr.electron@juno.com

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: jproc@bellglobal.com
Subject: RE: Another R-482 / URR- 35 Question
Message-ID: <Chameleon.4.01.2.961228143012.jproc@jproc.bellglobal.com>

>Thanks to all who have helped.
>On the rear input/output filter section of this rcv. is a bnc conn.
>marked " 50 OHM Scan ".
>
Rich,

That's the connnection for a panoramic adapter.

Regards,

Jerry Proc VE3FAB
E-mail: jproc@bellglobal.com
Radio Restoration Volunteer
HMCS Haida Naval Museum
Toronto, Ontario

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: RIlowite@aol.com
Subject: Antenna Tuner
Message-ID: <961228224137_36084435@emout19.mail.aol.com>

I have a Heathkit remote control antenna matcher complete with manual in very
good condition. Handles power up to a KW. Offers?
Ralph W2GKG

From boatanchors@theporch.com Sat Dec 28 12:39:40 1996
From: dr.electron@juno.com (Richard L Paton)
Subject: B.A.'s ; In praise of glass
Message-ID: <19961227.201312.7407.0.dr.electron@juno.com>

Tony;
I surmised from your post that you are involved in broadcast radio.

In 1976 I worked for Schaffer Electronics, division of CETEC group. They
were pushing their line of solid state RF transmitter equipment.
Did it flop as we expected? Schaffer built the infamous "AUDIOFILE"
NAB cart machines. I haven't heart a cart agonizingly dragging on the
air for several years. I guess they are finally out to pasture?
By the way, crital test functions were done there with Ampex, Scully,
Studer etc. Vacuum Tube equipment.
    Sorry about diverging from your original subject.`
Rich dr.electron@juno.com
     #   #   #

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: "Ray L. Mote" <rmote@rain.org>
Subject: BA Archive file <ww2.nomenclature>
Message-ID: <Pine.SUN.3.95.961228193219.26554C-100000@coyote.rain.org>

Lenox Carruth has found a problem in the above file. There's *nothing*
between the two "cut here" lines! If you need the file, let me know
and I'll send it to you.

73.....Ray Mote, K5FKT <rmote@rain.org> Oxnard, CA

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: jproc@bellglobal.com
Subject: RE: BA Archive file <ww2.nomenclature>
Message-ID: <Chameleon.4.01.2.961228233551.jproc@jproc.bellglobal.com>

>There's *nothing*
>between the two "cut here" lines!

This has happened to me and a few others. It's not specific to any file. The
Listserver appears to be 'shooting blanks' occassionally.

Jack: Perhaps you can say a few words about this problem. If downloading

files, should we make several attempts before contacting you or should you
be contacted at the first occurance?

Regards,

Jerry Proc VE3FAB
E-mail: jproc@bellglobal.com
Radio Restoration Volunteer
HMCS Haida Naval Museum
Toronto, Ontario

From boatanchors@theporch.com Sat Dec 28 12:39:40 1996
From: LLOYD SCOTT <wpul1130@concentric.net>
Subject: BC-221
Message-ID: <32C4AEB7.2E02@concentric.net>

Hi: Anyone have a msmual for the BC-221 thay wish to sell and
asking price? Thanks
Lloyd
wpul1130@concentric.net

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: jproc@bellglobal.com
Subject: RE: BC-221
Message-ID: <Chameleon.4.01.2.961228143352.jproc@jproc.bellglobal.com>

>Hi: Anyone have a msmual for the BC-221 thay wish to sell and
>asking price? Thanks
>

Lloyd,

A while back, I made some BC221 manual copies for many members of the list.
It's an 8.5 x 11 looseleaf copy - $US 4 postage included.

Regards,

Jerry Proc VE3FAB
E-mail: jproc@bellglobal.com
Radio Restoration Volunteer
HMCS Haida Naval Museum
Toronto, Ontario

From boatanchors@theporch.com Sat Dec 28 12:39:40 1996
From: Ho4bart@aol.com
Subject: re: before there were spotting switches
Message-ID: <961228043305_1009076772@emout01.mail.aol.com>

i think lack of any spotting facility was one of the
characteristics old-timers considered when they
recommended a setup: "makes a good novice rig".
along with poor dial resolution, lo power, fully
manual and inconvenient r/t switching, poor
selectivity, and lo cost. builds character, and helps
you appreciate those conveniences! my novice rig
here is a mighty weskit (kearny, NE) BN-1, which
has all the above features. mighty 1-watt coast-to-
coast power. sidetone? slip off the headphones (one
more thing to do to switch rec/trans) and lissen to
the clicking of the key! no rf burn if you reach for the
wrong knob!   hue miller

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: k3drj@radix.net (Jim Harding)
Subject: Re: Before there were spotting switches...
Message-ID: <199612281916.OAA25043@news1.radix.net>

>
>I have a (yet another) beginners question. Before there were
>transceivers there were spotting switches. But before spotting
>switches, how did one get an xmtr and rcvr on the same
>frequency when both use the same antenna?
>Thanks,
>
>Tim

Hi Tim, and I'm assuming that your connecting the Receiver to the
Transmitters T/R relay. If this is so, I really don't see any need to
disconnect the receiver from the normal antenna. When I was a novice and
used a Heathkit DX20 and Hali S40, connected through a T/R relay, I'd just
put the rig in the tune position (low power), hit the TX switch and send a
series of "V's" while I tuned around to find my rock bound signal..... and
of course signed my call afterwards :-) Anyone remember the "shave and a
hair cut... two bits" CQ?
An OO sent me some paper for using that illegal CQ procedure :-)

In those days, you might be lucky to have a few crystals that would allow you to get "close" the the sending stations frequency, so you'd have a better chance of him hearing you call him back. When you sent out a CQ, you had to tune the entire band to listen for a call, as all Novices were rock bound in those days.
When you heard a station answering a CQ, it was common to hear them sending for one or two minutes.... all the while hoping the other guy found him!
Monitoring you own signal was easy if you had one of those RF sensing CW monitors. They were popular in those days. Otherwise you had to have a keen hand/ears to monitor your keys clicking.

Take care and Happy New Year to all on the list

 - 73 - Jim - K3DRJ
--

Jim Harding
LaPlata, MD
k3drj@radix.net

From boatanchors@theporch.com Sat Dec 28 12:39:40 1996
From: gamrunrr1@juno.com (joe d spanker)
Subject: Collins 32V-3
Message-ID: <19961227.104551.10190.0.gamrunrr1@juno.com>

Hello, and happy Upcoming New Year! I've just Arrived home from my 300 mile Round trip to pick up My 32V-3! I've got it sitting on my workbench, it is supposed to be 100 percent working. I however cannot attempt to fire it up as the 5U4 and the OA3 are not present, I was told last time it was out of the Cabinet they were Broken in the process! I have a 5U4G here but no OA3, I was told that it needs a 5U4GB, I'm not familiar with this designation, The 5U4G is a very tight fit is the GB a slightly Smaller Version? Will my 5U4G work just fine? I would really like to get this thing tested. A couple other related Questions. On the right lower side of faceplate a 4 pin mike jack has been installed. I'm sure this is not original, what is? Does a PTT mod exist for this TX? A few More, Please bare with me! I have no paperwork with this TX. What is the proper power up Procedure if any? Low Voltage on, then High? What is the function of the Switch (600V/700V) on the Right Rear? What was manufacturing period for this fellow? Was the matching receiver a 75A4?

Thanks and Sorry for the length on this one! I'm Just a Very Happy Owner of a True Boat Anchor!!!

73..

CONDITION:

All Knobs, Screws Meters Etc. Seem to match and look original, Terminal strip on rear and cover intact, All rear connections seem original. Has had a 4 pin mike jack installed, All Glass intact except Crack in tuning window glass. ALL lettering intact, Band Switch Knob lettering All but gone, Chips in paint From Cabinet Removal, Paint chips around Screws that hold it into Cabinet/Rack (Obviously Over tightened!) One Tapered Phillips head Screw just above the Left meter Missing. Came in A Black Cabinet about an inch bigger all the way around then Faceplate, Color is Black Appears Original? has two Hand holds one on either side. lettering on rear matches connections and layout on rear.

Serial #177

Things I need, PLEASE!!

1. operating manual and or Schematic (Copy would be fine!)
2. OAF So I can Fire it up!!!!!

Things I would like.

Info on Touch up paint (Where to purchase, color, Etc...)
Spare Tubes Especially the 4D32
Replacement Screw for hole above left meter (Tapered Phillips Head)
Replacement Glass For Small Tuning Window
Matching receiver!!!!

Also Any modifications that will improve function as well as reliability on this TX. I wish to Enhance both condition and function of this fellow. I want a Talker Not a Mantle piece! I will Happily pay postage and copy fees for any and all info on this TX.

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: gamrunrr1@juno.com (joe d spanker)
Subject: Collins 32V-3
Message-ID: <19961228.005855.9942.0.gamrunrr1@juno.com>

Hello, and happy Upcoming New Year! I've just Arrived home from my

300 mile Round trip to pick up My 32V-3! I've got it sitting on my workbench, it is supposed to be 100 percent working. I however cannot attempt to fire it up as the 5U4 and the OA3 are not present, I was told last time it was out of the Cabinet they were Broken in the process! I have a 5U4G here but no OA3, I was told that it needs a 5U4GB, I'm not familiar with this designation, The 5U4G is a very tight fit is the GB a slightly Smaller Version? Will my 5U4G work just fine? I would really like to get this thing tested. A couple other related Questions. On the right lower side of faceplate a 4 pin mike jack has been installed. I'm sure this is not original, what is? Does a PTT mod exist for this TX? A few More, Please bare with me! I have no paperwork with this TX. What is the proper power up Procedure if any? Low Voltage on, then High? What is the function of the Switch (600V/700V) on the Right Rear? What was manufacturing period for this fellow? Was the matching receiver a 75A4?

Thanks and Sorry for the length on this one! I'm Just a Very Happy Owner of a True Boat Anchor!!!

73..

CONDITION:

All Knobs, Screws Meters Etc. Seem to match and look original, Terminal strip on rear and cover intact, All rear connections seem original. Has had a 4 pin mike jack installed, All Glass intact except Crack in tuning window glass. ALL lettering intact, Band Switch Knob lettering All but gone, Chips in paint From Cabinet Removal, Paint chips around Screws that hold it into Cabinet/Rack (Obviously Over tightened!) One Tapered Phillips head Screw just above the Left meter Missing. Came in A Black Cabinet about an inch bigger all the way around then Faceplate, Color is Black Appears Original? has two Hand holds one on either side. lettering on rear matches connections and layout on rear.

Serial #177

Things I need, PLEASE!!

1. operating manual and or Schematic (Copy would be fine!)
2. OAF So I can Fire it up!!!!!

Things I would like.

Info on Touch up paint (Where to purchase, color, Etc...)
Spare Tubes Especially the 4D32
Replacement Screw for hole above left meter (Tapered Phillips Head)

Replacement Glass For Small Tuning Window
Matching receiver!!!!

   Also Any modifications that will improve function as well as reliability on this TX. I wish to Enhance both condition and function of this fellow. I want a Talker Not a Mantle piece! I will Happily pay postage and copy fees for any and all info on this TX.

From boatanchors@theporch.com Sat Dec 28 12:39:40 1996
From: Ho4bart@aol.com
Subject: re: digital readout for "blooper" receivers
Message-ID: <961228044201_1155731114@emout02.mail.aol.com>

digital readout for regen receivers is a swell & practical idea. since there's no IF offset on the osc. you can use a simple counter design like the 1-chip wonders avail. now. note, i mean for new construction. if you use the rec for am reception like for int'l swbc the rec of course is not oscillating. for this i suggest a feedback override pushbutton, that brings the regen stage back into osc. so the counter reads out when needed, and you don't have to twiddle the regen control every time you want to check freq.   older USN regen rcvrs RAK RAL RBL had a OSC TEST button, push it when no signal / no audio present, to verify that rec was in oscillating state and thus operating.   hue miller

From boatanchors@theporch.com Sat Dec 28 12:39:40 1996
From: km1h@juno.com
Subject: re: Dubrow PTO = R392
Message-ID: <19961228.113711.9895.1.km1h@juno.com>

Thanks for the many replies...mystery solved.

73.....Carl

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: Tom Norris <badger@telalink.net>
Subject: External tuner for SRT-14?????
Message-ID: <2.2.32.19961229014230.006c9854@telalink.net>

I found a cache of dead and badly corroded SRT-14's today, (4 of em) and other stuff as well (more later on the "other stuff")
Among the "stuff" were several external antenna couplers that

the owner says goes with the SRT-14. Anyone have any info on these?
Anyone WANT one should this guy give them to me.
I only saw them from a distance, so cant give much of a description
other than they were cylindrical, at least a couple feet long, and had
a large ceramic insulator on one end. And they were gray......
Also saw the companion RTTY demod to the SRR-11, etc rx's.
Any info on that unit? Is it worth packing home and sitting in a corner
somewhere to use as a table or something???? :-)

This is the "mystery warehouse I had briefly mentioned several months
ago. Fianlly got ahold of the guy. Will give a full report after my visit
Saturday after next when I can see the stuff in daylite.
****
Tom Norris KA4RKT
badger@telalink.net   Nashville, Tennessee, USA

Eagles may soar, free and proud, but weasels never get sucked into jet engines.

****

From boatanchors@theporch.com Sat Dec 28 12:39:40 1996
From: Bob Roehrig <broehrig@admin.aurora.edu>
Subject: filter chokes
Message-ID: <Pine.ULT.3.95.961228114253.19763D-100000@admin.aurora.edu>

A while ago there was a thread about chokes and how their core
construction differed from transformers. This week I decided to
build a supply for my AMR101. Needed was 6.3V and about 250V.
I had everything but a choke. So in a pinch I substituted a
30V, 2 amp transformer (use the primary). The thing really
works well - the ripple is attenuated about 40dB. I used
30 uf caps on each side of the PI.

E-mail broehrig@admin.aurora.edu 73 de Bob, K9EUI
CIS: Data / Telecom Aurora University, Aurora, IL
630-844-4898 Fax 630-844-5530

From boatanchors@theporch.com Sat Dec 28 12:39:40 1996
From: "R. Eric Sluder" <sludere@gte.net>

Subject: RE: FS Manual for HQ-145X
Message-ID: <32C5720F.7187@gte.net>

Sorry folks the manual has been sold. In keeping with the tradition on
this list, it's first come first serve.

73,

Eric Sluder, KB9BGS
Carmel, IN

sludere@gte.net

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: DArney@gnn.com (Dan Arney)
Subject: FS VIKING & VFO 122
Message-ID: <199612282046.PAA28927@mail-e2b.gnn.com>

I have for sale a very clean Viking II with VFO-122 and original
manuals. SS rectifiers for 5R3's. Just replaced XFMRS high and low.
$300.00 plus shipping from 91325. I will pack units for shipping
for free.(I own professional packing service.

Thanks,
"Hank" KN6DI

From boatanchors@theporch.com Sat Dec 28 12:39:40 1996
From: "R. Eric Sluder" <sludere@gte.net>
Subject: FS: Manual for HQ-145X
Message-ID: <32C4BF24.65B9@gte.net>

I have an original manual in very good condition for the Hammarlund
HQ-145X for sale.
$15.00 post paid takes it.

Eric Sluder, KB9BGS
Carmel, IN

sludere@gte.net

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996

From: dr.electron@juno.com (Richard L Paton)
Subject: RE: FUNKY FUSES
Message-ID: <19961228.121519.9439.2.dr.electron@juno.com>

Here's some info on BUSSMAN fuses:
URL: http://www.38north.com/bussman/bussman.html   (home)
EMAIL: fusebox@bussman.com

Should find info on obtaining free Full Line Catalog; lots of fuse data
& more.
Hope this helps.   Rich, dr.electon@juno.com
         #   #   #

From boatanchors@theporch.com Sat Dec 28 12:39:40 1996
From: km1h@juno.com
Subject: Help with Collins UHF amp
Message-ID: <19961228.113711.9895.9.km1h@juno.com>

I am trying to locate a schematic or any other information on the
following:

Collins Model 648B-1 RF Amplifier
Collins Part # 777-1215-003
Govt Contract #   F04606-81-D-0052   US

A search of the Rockwell Web page came up negative but maybe I didnt know
where to look. Any help is appreciated.

Tnx   Carl   KM1H

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: k7yha@juno.com (Richard H. Arland)
Subject: Help with Spotmaster Cart Machine
Message-ID: <19961229.021737.6735.9.k7yha@juno.com>

Gang:

Any of you broadcast-types out there familiar with a Broadcast
Electronics, Inc, Spotmaster "Five Spot" cart machine? Got one I'm
having troubles with and need some help and a source for spare parts.

73 rich K7SZ

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: vancleef@netcom.com (Henry van Cleef)

Subject: Re: Help: RME45(Late)
Message-ID: <199612281911.MAA26596@netcom23.netcom.com>

As dave metz discourses
>
>   I'm finally getting into this wonderful receiver with lots of previous
> problems from a previous "fixer". First, I discovered the output transformer
> plate and B+ leads were reversed. The voltage divider is not original but
> the voltage appears to be close to previous posts in this forum. Tubes have
> been checked and replaced for additional testing methods, and all voltages
> and resistances seem reasonable from the charts in Sams and Riders. The set
> is not "dead" just almost deaf. However, I am attempting to start with the
> IF alignment and running into motorboating/oscillating. I have resisted
> making a wholesale wax cap replacement at this time. Yet from the late 40's
> I have been told that this capacitor vintage is totally bad. This unit has
> the VR150 and an 80 rectifier tube so I think its considered a "late" --
> not a B model.

RME-45, no suffix, did not use a VR-150. RME-45A had a VR-150, but
the same one-speed dial drive used in the 45. RME-45B had a two-speed
dial drive. At some point (probably the "A") the fixed shunt noise
limiter was replaced with a switchable series noise limiter.
>
> Could someone comment as to whether to take a time out and do a wholesale
> wax cap replacement before proceeding ahead?

Yes. This includes removing the coil boxes and replacing the bypasses
in the coil boxes. Clean everything up in there, and give the tuning
cap a bath in a soap solution (soak it for a day, then rinse with hot
water, dry, and squirt a little oil on the ball bearing). Take out
the bottom coil boxes from the front, after pulling out the bandswitch
shaft and long rods---there are holes in the chassis for this. This
will give you access to the RF and converter tube sockets. Bandswitch
wafers are all the same. Check the padder caps at the back of the
oscillator coil box, and replace if necessary.
>
> Also, when adjusting the 2nd IF trimmer caps, this seems to be the major
> source of the motorboating. Would this mean a problem in this vicinity?
>
You've said that the set is "deaf." Take each of the IF cans off and
inspect the coil terminations at the tuning caps. These are
Litzendraht, and one broken strand will kill Q and gain. A 45 in good
condition and tweaked up properly is not at all "deaf." You can
replace the 7J7 converter with a 7S7 and get good results (RME did
this in later models).

Parasitics and RFI: Install a couple of .01 bypass caps to ground at
the AC mains connection into the set. I added a terminal strip near

the line cord hole in the chassis for this.
I fought a parasitic in my set that was tied to the crystal filter peaking coil and AVC line. I suggest aligning the set with the filter removed (put clip leads across the socket), then installing the filter. My set wanted a .01 on the AVC line in front of the decoupling resistor to shut up the racket. If you align the set with the filter out of the circuit, then adjust the filter coil properly, you'll get a nice, sensitive, quiet radio and a filter that works very nicely on all of its steps.

> Lastly, would it be appropriate to inject the 455 at 3rd can and peak, then
> the second can etc to locate the source of the motorboating? Or, does one
> need the amplification of the successive stages to create the problem.
>
The very best alignment will come from monitoring the detector output, and injecting signal at the last IF grid first, then walking forward stage by stage to the mixer grid.

When aligning the front end, note the interaction between the converter RF adjustment and the local oscillator adjustment, particularly on bands 5 and 6. Align with the shields in place. Walk back and forth between 10% and 90% of the dial range and tweak to neutralize out this interaction. This will make a big difference in sensitivity on those two bands. The radio should be sensitive right out to 31-32 Mhz.

Because of the way the set was made originally, removal of the coil boxes so that you can get at all of the circuits easily is advisable. Take notes on the wiring. A 45 in good shape is a very sensitive radio, and has good signal/noise ratio. If you've got a noisy and deaf radio, I suspect you've got coil and dirt problems. Spend some time with it, and you'll have a nice radio when done.

--
==========
Hank van Cleef
E-mail vancleef@netcom.com or vancleef@tmn.com
==========

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: "Deane D McIntyre" <dmcintyr@acs.ucalgary.ca>
Subject: Re: HP 400D VTVM
Message-ID: <9612281848.ZZ682426@ds1.acs.ucalgary.ca>

Gang:

Many thanks to Hank and other list members who replied to my query
regarding the HP400D VTVM. Hank as usual hit the hail on the head...

In message <199612270608.XAA05739@netcom23.netcom.com> Henry van Cleef writes:

>
> The first place to look for trouble is in the power supply. Before
> looking at the B+, check for 12.6 volts DC on the heater supply. If
> voltage is low, the tubes don't draw enough current to pull the B
> supply into regulation. Make sure all the tubes are lit up and
> drawing plate current. The first four tubes in the amplifier (CF
> under the shield at the lower front, and first three amplifier stages)
> have their heaters wired in series-parallel. Don't pull one tube out
> when running the thing. The selenium rectifier generally is OK, but
> the wirewound pot for adjusting heater voltage gives out after a
> while. Best bet is to use some cement power resistors, and select a
> value that gives the proper heater voltage, and forget the @#$%^ pot.

Everything in this department checked out OK. The heater voltage
was 12.8 VDC with a fraction of a volt of AC ripple on it. As my
line voltage is a bit high (122 volts) I left the pot alone.
Putting a large cap in parallewith the filter cap did not help
matters.
>
> Symptom "meter does not zero on any range with input shorted" is
> almost always traceable to hum or noise on the power supply lines.
> Units having a 6U8 regulator tube may need a different 6U8. Only
> "test" I know of for this is to try another 6U8. If B+ is high with
> the pass tube pulled out of the circuit, you are not drawing enough
> current through the shunt resistor, so the circuit can't possible
> regulate.

I did not have a replacement 6U8 handy, but several months ago on
the list there was a discussion regarding 6U8 problems, and how a
6GH8 was a good replacement. At that time AES had them on sale for
$1.50 so I ordered three for any possinle future needs. They were
NIB Sylvania. I replaced the 6U8 with one (actually a 6GH8A) and
everything was reasonably happy. Needle sits about one needle width above
 zero with the input shorted...i.e about 1/5 max of a minor divison.
Likely nothing worth worrying about.

I did notice that I have one Black Beauty cap in the unit....this
has got to go I suppose!

 adjust the
> meter feedback pot (the one on the printed circuit board that has the
> diodes on it).

After this adjustment it seems reasonably accurate on the scales
I have tested, comparing to a Fluke meter. Will borrow a audio
oscillator and scope and do it properly later...

> ==
> Hank van Cleef
> E-mail vancleef@netcom.com or vancleef@tmn.com
> ==

73, Deane D McIntyre VE6BPO
dmcintyr@acs.ucalgary.ca
deane@deane.bio.ucalgary.ca
Homepage http://deane.bio.ucalgary.ca (very much under construction!)

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: "Deane D McIntyre" <dmcintyr@acs.ucalgary.ca>
Subject: Re: HP 400D VTVM-postscript
Message-ID: <9612290537.ZZ690543@ds1.acs.ucalgary.ca>

> Gang:
> Many thanks to Hank and other list members who replied to my query
> regarding the HP400D VTVM. Hank as usual hit the nail on the head...
>
In my previous post I had got the HP 400D working properly, the needle
staying (almost) on zero on all rangers with the input shorted.

Decieded to track down the last bit of AC pickup.....

Replacing a 6CB6 in the amplifier (the one under the shield) got
rid of most of it, must have had a bit of heater/cathode leakage

Replacing the aforementioned 0.5 mf paper cap (actually a Black
Cat, not a Bleak Beauty) got rid of the last bit of AC pickup.

According to the tube date codes my 400D dates from 1962.
Now it should be good for another 35 years (yes, I do have a
stash of 6CB6's)

Quality test equipment (HP, Tek, General Radio, Boonton, Measurements)
is such a joy to use.....I suppose top of the line when it
was made. I suppose that Joe's Radio/TV repair show of 40 years ago
could afford none of this, and stuck to EICO/Heath etc, but than
Joe likely earned a fair bit of his income replacing 50L6's and

35Z5's in radios and 6DQ6's and 1B3's in TV sets, for which the only test equipment needed was between Joe's ears. For that matter Joe likely got the most mileage out of his Simpson 260.

73, Deane D McIntyre VE6BPO
dmcintyr@acs.ucalgary.ca
deane@deane.bio.ucalgary.ca> Homepage http://deane.bio.ucalgary.ca (very much under construction!)

>

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: bdhall@ghg.net (Benjamin D. Hall)
Subject: HQ-150 adventures: WON New Orleans?
Message-ID: <32C5ADEC.67B4@ghg.net>

Hiya folks... Hope everyone has been enjoying the holidays...

Some of you may have read my "what BA should I take with me to Alabama" query and know that I took my Hammarlund HQ-150, as it is a nice SWBC set, reasonable on SSB, and reasonable on CW... Well, a few days ago it developed a problem. With the AVC on, the audio was really weak, but when I switced the AVC off, the audio was crankin' out of the speaker. Well, not having the schematic with me, I thought the 6AL5 tube did something with the AVC, so I yanked it and tested it in the TV-7. TV-7 showed it to be just below miniumum, and of course I brought 6BE6 and 6BA6 spares but no 6AL5 spares. So I put it back in and thought oh well, not much I can do before returning to Houston. Well, fired it up this evening just for ha's and all is well, it works well. Well I'll be dipped in bar-b-q sauce!

So, I was toodling along the bands and came across this strong SSB signal right above 8.7 MHz, flipped on the BFO, reduced the sensitivity, and tuned and adujusted the BFO pitch until I could understand it. Well, it was nautical weather information, much like WWV and WWVH reads, saying blah blah blah above 30 degrees, etc... After about 5 minutes, I heard "end of forecast, this is WON, New Orleans" and it ceased transmitting. What is WON? Any of you ex-Navy types or nautical types know?

Please respond to me, not to the list!!! I'll summarise what I learn if anyone is interested as I am...

Thanks and 73,
Ben

--
>From the computer of Benjamin D. Hall, junque collector extraordinaire.
Home for the holidays in Huntsville Alabama, deep in the Heart of Dixie.
e-mail: BDHall@GHG.net

From boatanchors@theporch.com Sat Dec 28 12:39:40 1996
From: John Wieder <jwieder@gunnison.com>
Subject: HQ110 IF Xformer needed
Message-ID: <199612280316.UAA00251@gunnison.com>

A noncomputer BA friend is looking for the above item. It is shown in the
schematic as T5, 455 khz. Would anyone have such an animal and what kind of
price would be involved? Please respond to me by personal email and I will
relay to the local ham on this end. Tnx   73   John K0JY
        jwieder@gunnison.com

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: "Allan Fritsche" <fritsche@msn.com>
Subject: I hope the last of the R390 Series
Message-ID: <UPMAIL03.19961229003532044 5@msn.com>

Hi Gang, Hope everyone enjoys their R-390 or A model, I worked on a lot
of them in the ASA branch of the service back in the sixties. They are
some of the best, but lets get talking about some other critters out there.
Darn, if you wanted HI-Fi audio, go to Rat Shack and get their newest
SWL receicver, Ive heard its good and loud.

Your friend Al
fritsche@MSN.COM

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: pmills@A.crl.com (Phil Mills)
Subject: Re: I hope the last of the R390 Series
Message-ID: <199612290129.AA02944@A.crl.com>

Al, I suppose you want us to talk about HQ-xxx with broken tuning
slugs?? You should get back to the 390/390A stuff...it is good!

732, Phil

>Hi Gang, Hope everyone enjoys their R-390 or A model, I worked on a lot
>of them in the ASA branch of the service back in the sixties. They are

>some of the best, but lets get talking about some other critters out there.
>Darn, if you wanted HI-Fi audio, go to Rat Shack and get their newest
>SWL receicver, Ive heard its good and loud.
>
>Your friend Al
>fritsche@MSN.COM
>
>
Phil Mills, AB5TH   *****   *****
pmills@a.crl.com
281-992-5762 days
Friendswood, TX   (south of Houston)

From boatanchors@theporch.com Sat Dec 28 12:39:40 1996
From: Mike Maloney <ac5p@ionet.net>
Subject: knobs,Knobs,KNOBS/WTF
Message-ID: <199612280531.XAA26251@mail.ionet.net>

Greetings BA fans,

Can any of you put us on to anyone who has a LARGE collection of knobs that
might match missing BA knobs?
Thanks for your help.
Mike   ac5p@ionet.net

From boatanchors@theporch.com Sat Dec 28 12:39:40 1996
From: Eugene Rippen <soundval@foothill.net>
Subject: Re: Lifting BA's
Message-ID: <32C497DD.5FB6@foothill.net>

Roberta J. Barmore wrote:
>
> Hi!
>
> On Fri, 27 Dec 1996, William Hawkins wrote:
> > [...] ask what you do for moving those big sets from the rack to the
> > bench and back again without tearing aging muscles.
>
>   Interesting question! At home, I mostly don't; if it weighs too much
> for me to carry to the basement alone, I don't have one! (The only
> exception is an SX-28 that I need to pack up and ship off to a fellow).
>
>   But at work, I do find need to move a lot of very heavy things
> alone--the rackmount precision color monitors being among the worst. The

> answer is, don't lift 'em! Or never very far. I have a beat-up but solid
> lab cart about a yard high, 30" long and 18" wide, plus a good stock of
> 2x4 lumber in 2' and 3' lengths. You just build up a little platform on
> the cart at the height of the device, slide said device onto it (tricky!),
> and take out 2x4s 'til it is at the right height to slide onto the
> workbench.
>   For things mounted lower, a wooden dolly with four casters and a solid
> top about the same size as the lab cart does the trick. Also handy for
> moving the visual PA tubes for the old rig, which come in awkward and
> middlin' heavy boxes.
>
>   This sort of thing would be easy to whomp up from standard lumber, and
> would do very well in a serious BA hamshack.
>   Some gear is built that way--didn't the BC-610 have wheels? You have
> to watch that trick with tall racks--get too many heavy things up high and
> it's a nasty trap. (IMHO, any rack over 4" or so ought to be bolted to
> the floor or have a lot of weight at the bottom. The 6+' job at home has
> a lot of h/p gear living in the bottom; it's a little awkward to get to
> but beats having to yell "TIMBERRRR!" and run.... ;)
>
>   73,
>   --Bobbi

Hi Bobbi and gang,

Watch it with those "lab carts/hospital carts" many of them have rather narrow wheel base. They are not normally built to handle much weight.

I had a wooden box full of sand with a sensitive transducer inside on one of those. It tipped over while rolling it. Got a very flat big toe. We all stood around staring at the blood running out of the top of my shoe.

Gene (Graphic) Rippen

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: "Ray L. Mote" <rmote@rain.org>
Subject: Re: Lifting BA's & WD-40
Message-ID: <Pine.SUN.3.95.961228194600.26554F-100000@coyote.rain.org>

.... and after you have the BA in the rack, you can (as at least one OT does) use the WD-40 on your aching joints! Frankly, I don't have the slightest intention of trying this one <grin>, but I'm told that one of the components in WD-40 is DMSO.

Haven't tried holding an R-390A panel parallel with the rack rails with one hand while trying to put in screws with the other. Think I'll find

another method instead. <wiiiiide grin>

This has been a fun topic -- all sorts of insight and neat ideas. Just be darned careful when mounting anything really heavy up high, *especially* if you're using equipment slides. As Ed Zeranski said, it pays to bolt that rack to the floor if you're going to try this trick. (Or make sure your life insurance is paid up!)

73.....Ray Mote, K5FKT <rmote@rain.org> Oxnard, CA

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: "Allan Fritsche" <fritsche@msn.com>
Subject: Long Live the R-390's
Message-ID: <UPMAIL03.19961229004635041 9@msn.com>

Sorry Guys, I lost my head, Perhaps Iam Jealous, I don't have one

Your Friend Al
fritsche@msn.com

From boatanchors@theporch.com Sat Dec 28 12:39:40 1996
From: "R. Eric Sluder" <sludere@gte.net>
Subject: Manual wtd: IP-17
Message-ID: <32C4BE59.6A77@gte.net>

I'm in need of a manual for a Heath High voltage power supply model IP-17.
I'd like the full kit builders copy if possible...
Will pay the usual costs associated with copying and mailing.

Any help would be greatly appreciated.

73,

Eric Sluder, KB9BGS
Carmel, IN

sludere@gte.net

From boatanchors@theporch.com Sat Dec 28 12:39:40 1996
From: "David A. Cooley" <cooldave@ipass.net>
Subject: My First BA!

Message-ID: <1.5.4.32.19961228175656.0069a090@mail.ipass.net>

Hello all,
Acquired my first BA yesterday! It's probably a bit newer than what most of you consider BA's, but it glows in places and will keep your boat steady if it comes to that! It's a GE master Low VHF Xceiver... originally designed for 42-50 MHz, and used by the Raleigh, NC Highway Patrol. I already have 2 channel sets of Xtals in it thanks to WB4IUY... Thanks Dave!... it is a hybrid unit for those not familiar... all transistorized except for the 3rd multiplier and 2 PA's... they're tubes. 100Watts and it runs from 12 volts.

My Next question is:
anyone have any data on the tubes it uses or sources for spares just in case?

3rd multiplier is an 8106, the PA's are 7984's.

Thanks,
Dave
==========
David Cooley N5XMT   Packet: N5XMT@W4RAL.#RTP.NC.USA.NOAM
Internet: cooldave@ipass.net   And Web: http://www.ipass.net/~cooldave/
Sponges grow in the ocean... Wonder how deep it would be if they didn't!
==========

From boatanchors@theporch.com Sat Dec 28 12:39:40 1996
From: "David A. Cooley" <cooldave@ipass.net>
Subject: Re: My First BA!
Message-ID: <1.5.4.32.19961228182211.006a2d68@mail.ipass.net>

Forgot to add, the GE master Xcvr had the original Highway Patrol Maintenance record folded up in the PA section... It appears to have been put into service originally in 1968.

Thanks,
Dave
==========
David Cooley N5XMT   Packet: N5XMT@W4RAL.#RTP.NC.USA.NOAM
Internet: cooldave@ipass.net   And Web: http://www.ipass.net/~cooldave/
Sponges grow in the ocean... Wonder how deep it would be if they didn't!
==========

From boatanchors@theporch.com Sat Dec 28 12:39:40 1996
From: vancleef@netcom.com (Henry van Cleef)
Subject: Re: NC173 notes and whaza 6SBY7?

Message-ID: <199612281836.LAA04639@netcom23.netcom.com>

As Mark Shaum discourses
>
> I recently completed the NC173 overhaul and noted that the pentagrid mixer tube
> installed in my unit is a 6SBY7 in place of the original 6SA7. I picked up a
> couple 6SA7's at the Elgin ARCI meet last Sunday to substitute, but the 6SBY7
> seems to provide considerably greater conversion gain. I can't find this tube
> in any of my manuals, tube tester charts, etc. Just wondering if anybody has
> specs on it, and can compare to the 6SA7? Since it's rather difficult to test
> these mixer tubes on TV-7 or similar testers, I'm not sure if I have two soft
> 6SA7's or if the 6SBY7 is indeed a much 'hotter' tube.

The tube you are looking at should be a 6SB7Y. It is, indeed, a "hot"
6SA7, with about twice the conversion transconductance (read "G3
transconductance"); other parameters are the same as for 6SA7, so it
is (theoretically) a plug-n-play substitute for 6SA7.
>
> Finally, on 6 meters, it takes 300 uv at the antenna connection to get the
> s-meter to move up to S1. A 100 uv modulated signal is sorta-audible. Since
> detailed sensitivity specs for the 173 were not published in ads or in the
> manual, I'm guessing this is about par.
>
This doesn't sound right. I would expect an NC-173 to produce 50 mw.
of audio with a 1-2 microvolt signal 30% modulated (the standard
sensitivity test in the forties) on 80 and 40 meters, and to require
no more than about 10 microvolts for the same on 6 meters. While I
may be off on this, I don't think I am off by 20db (100 microvolts vs.
10). I'd take a good look at the condition and cleanliness of the
front end components.

On putting a "hot" conversion tube in place of the standard, you'll
get twice the conversion transconductance----and twice the generated
noise in that stage. You're also opening the door to parasitics. In
short, while the tube specs are "plug-n-play," the results may not be
very good. In short, when you do "modifications" you are upsetting
the balance in the original design, and have to study the whole
design, not just the stage you are fiddling with. The 173 used 6SG7's
in the RF and IF stages, which is "plenty of gain" there; and used a
6J5 local oscillator driving the 6SA7 converter. I'd want to know how
the RF amp and oscillator were doing with a 6SA7 in that socket before
fiddling with it.

--
==========
Hank van Cleef
E-mail vancleef@netcom.com or vancleef@tmn.com
==========

From boatanchors@theporch.com Sat Dec 28 12:39:40 1996
From: km1h@juno.com
Subject: Re: NCL-2000 Question
Message-ID: <19961228.002503.9807.18.km1h@juno.com>

I respect Richards comments but I have a few problems with them. I hope to respond and clarify my original premise here in as few words as possible.

On Fri, 27 Dec 1996 18:25:03 -0600 (CST) Richard Hager <rhager@millcomm.com> writes:
>km1h@juno.com wrote:
>
>> Power supply capacitor leakage is a big cause of excessive
>transformer
>> heat and eventual failure. Replace only with quality USA brands; NOT
>> import brands that will not handle the ripple current of the half
>wave
>> doubler PS.
Hello high-voltage fiends...
>I'm glad that KM1H mentioned the neccesity of using rugged-service
>caps in
>big amplifier supplies, but the above is a mistaken assumption that I
>hope I
>can correct here. The real issue is whether the cap is rated for the
>intended service, not which country it comes from.

In this context I mean Asian imports since this is what is available to most people. I do not mean to degrade various European products, but these are generally not available to the average guy trying to fix his amp in the middle of a contest or out somewhere in East Podunk. I DO want to stress however that Rat Shack or similar IS NOT the answer. I assume that we both agree that the doubler circuit, altho with its merits, can be a bit rough on filter capacitors (my original post was about the NCL-2000 which uses a doubler). For the sake of this expanded discussion I will include any HV amplifier supply, whatever the configuration.

>The vast majority of electrolytic caps used in all types of electronic
>equipment -are- imported.
>(Imported to the US, that is! Remember that a fair number of BA
>readers are
>-not- in the US, so let's not be -too- provincial...grin).
>Imported is not a dirty word. Philips, Nichicon, WIMA, Marcon, and

>others
>all over the world all make extremely high quality parts. In fact, in
>film
>caps, WIMA of Germany probably makes the best in the world, with
>phenomenal
>current and V/uS ratings.

I am not aware of any current Asian source of, as you say rugged, electrolytics. Nichicon was a great source in the past and they were actually used in Heathkit and Dentron amplifiers, to name a few. That complete series, axial or can type, have been long discontinued. Grab any old stock if you can find it. If anyone is aware of other sources, please share the info.
The last Kenwood TL-922A amplifier that I worked on had Sprague capacitors wheras earlier production had Nichicon. The PS was not the service problem!

>However, big cap makers also make LOTS of different 'series' of
>capacitors,
>designed for different levels of service. That's the key. If you
>purchase
>the proper part for your application, you will not have a problem,
>whether
>the part is imported or made in the US. In fact, many 'US brand' caps
>are
>sourced overseas and labeled with the US maker's name.
>
>But, if you buy a cheap low-end cap that was not designed for 'rugged'
>
>service, from ANY source, then you'll have trouble. Even if it does
>say
>'Sprague' or 'Mepco' on it. Don't even ask me how many 'sprague' caps
>I've
>had to replace in old scopes and meters...
>
>Funny enough, but the ripple-current rating of a cap is determined
>more by
>the physical size, than by any fancy technology! The bigger the cap,
>the
>higher the ripple current rating. This is due to the increased
>surface
>area, which allows greater heat dissipation. If you look through a
>complete
>Nichicon data book and compare same-value parts from different series,
>you'll see this correlation.

I have to disagree here Richard. For several years I have been using the

usual 450V Computer Grade caps and also the Mallory TC series for amp repair in the shop. However , there appears to be a capacitor that is half the size that works very well. I refer to the CDE 381LX series...made in the USA ...South Carolina anyway..close enough. This is a series of 105 deg C snap-lock electrolytics specifically designed for high ripple current service and they have ratings of up to 10A of ripple current. I have had extended conversations with CDE engineers and am fully confident that the 381LX series is a proper choice for HV series string amp service. Although designed specifically for switching supply service, they fit right into our use.

I have been using the CDE's now for well over a year in my own amps and customers with zero failures. They run very cool also. The only problem is with the size and packaging (they are radial lead only). It will take some adapting in most amps but thats what we do best...right?

>These caps were designed for volumetric efficiency, NOT ripple current
>

>
>Any 200-450v cap designed for switching power supplies should run
>perfectly
>fine in an amplifier power supply, so long as it's used within it's
>ratings.

I would want to qualify the above by changing the use to an industrially rated switching supply, not consumer grade.

I'll save the best for last. They are stocked at Mouser.

73.....Carl

From boatanchors@theporch.com Sat Dec 28 12:39:40 1996
From: WB2ODHJIM@aol.com
Subject: Need Plate Transformer
Message-ID: <961228110402_2053644406@emout05.mail.aol.com>

I'm looking for a transformer to be used as a plate Transformer. The Pri must be in the 220 -240 vac range with Secondary of 1450 1700 vac @ .700A capacitor input. ICAS

Please advise direct E-mail; wb2odhjim@aol.com

73
Jim, WB2ODH/6
DM-04 Southern California

From boatanchors@theporch.com Sat Dec 28 12:39:40 1996
From: the-radio-doctor@juno.com (Rob D Long)
Subject: Newbie
Message-ID: <19961227.105355.10182.1.the-radio-doctor@juno.com>

   Hello All I think I've found a new home!   I'm new to the list, Any Chance someone out here happens to have an Entry level BA Station for sale or a TX or RX to get started? Thanks, 73 Rob.

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: RIlowite@aol.com
Subject: Re: Newbie
Message-ID: <961228151419_2053668336@emout02.mail.aol.com>

Rob: I have a hallicrafters SX-140 for sale. This a general coverage receiver but also includes the ham bands. It is in mint cond, works perfectly and I think it would serve you well as an entry level receiver. Am asking $ 75 plus shipping. If interested reply to E'Mail address or 201-445-1629
Regards;; Ralph W2GKG

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: dr.electron@juno.com (Richard L Paton)
Subject: RE: Panoramic Adapter
Message-ID: <19961228.121519.9439.0.dr.electron@juno.com>

Thanks for info.
This might sound really dumb, but here goes.
What is a panoramic adapter? (New to me)
Also, what is the relative performance of an RBC-1? Truly a Boatanchor !
I miss the one I had; was sold while I was overseas in the Navy. DRAT !
Thanks, from the quintessential student of the valve,
RICH dr.electron@juno.com

From boatanchors@theporch.com Sat Dec 28 12:39:40 1996
From: "Roberta J. Barmore" <rbarmore@indy.net>
Subject: Re: Pulled Muscles from BAs
Message-ID: <Pine.SUN.3.91.961228102016.2911A-100000@indy1>

Hi, Richard & BA-gang!

On Fri, 27 Dec 1996, Richard Hager wrote:
> PS: The part I hate is holding the BA in the air in the rack, while putzing
> with those 10-32 screws...

   Ummm, there's a trick to this, or maybe two tricks:

   1. Simple version:
     A. Before attemptng to put the heavy gear in the rack, run the two *top* screws in from the back of the rails, so the stud sticks out the front.
     B. Lift the gear (see earlier suggestions) and get it hanging on those studs. Keep the front as nearly parallel to the rails as possible!
     C. Holding the bottom of the front panel against the rails with one hand, run the lower screws in from the front with the other. (An eectric screwdriver is real handy). If possible, lift up a bit to get the weight off the top "backwards" screws you put in. Put *all* the mounting screws in, they didn't make those extra notches in the panel for the fun of it.
     D. Go around to the back of the rack, remove the backwards screws (an extension is handy here). Take 'em around to the front and put 'em in. The other screws will hold it fine while this is going on--the bottom ones do most of the work anyhow.
     E. General principle--leave at least one 1.75" space between adjacent gadgetry unless they're all small, light and don't generate heat. The extra space can be filled with blank panels and makes a big improvement in cooling & the ability to get the thing in and out of the rack without damaging the stuff each side of it.

   It's not a perfect answer, you *can* still have gadgets crashing to the floor, but it beats trying to hold the thing with one hand, line it up with the other, and then put in the screws with your feet! (Tried tetth--it doesn't work. Blamed machine-oil on the screws tastes bad, too).

   2. Less-simple version:
     Get roll-outs, put 'em on your gear & at the proper heights in the rack. The good ones lock in the full-out position, making installation/removal a simple process. It's not cheap and figuring out how to get the rails mounted on the gear can be a nasty challenge; the rack has to be the sort with some kind of rails in the back as well as the front and the cheap/free ones usually don't.

   73,
   --Bobbi

From boatanchors@theporch.com Sat Dec 28 12:39:40 1996

From: Bob Roehrig <broehrig@admin.aurora.edu>
Subject: Re: Pulled Muscles from BAs
Message-ID: <Pine.ULT.3.95.961228113424.19763C-100000@admin.aurora.edu>

On Sat, 28 Dec 1996, Roberta J. Barmore wrote:

>   1. Simple version:
>   A. Before attemptng to put the heavy gear in the rack, run the two
> *top* screws in from the back of the rails, so the stud sticks out the front.
>   B. Lift the gear (see earlier suggestions) and get it hanging on
> those studs. Keep the front as nearly parallel to the rails as possible!
>   C. Holding the bottom of the front panel against the rails with one
> hand, run the lower screws in from the front with the other.

Excellent idea Bobbi. I have four 6 foot racks in the shack and never
thought of that. My problem, however, is that I can't get to the back
of 2 of them. What I usually do is either temporarily install a small
blank panel to rest the bottom of the BA on, or else I install a
rack shelf - upside down (if there is room) that I can slide the BA
on top of.

Racks with tapped holes are far superior to those that use the clips
and sheet metal type screws when it comes to holding heavy gear.
I have seen gear fall to the floor when those sheet metal screws
stripped out the clips from excess weight. Some gear, like some
of the Tek scopes, that are deep and not real high should never be held
with just the panel screws. They must either be on rails or a shelf.
Especially if most of the weight is in the rear of the equipment.

        E-mail broehrig@admin.aurora.edu   73 de Bob, K9EUI
            CIS: Data / Telecom   Aurora University, Aurora, IL
                      630-844-4898 Fax 630-844-5530

From boatanchors@theporch.com Sat Dec 28 12:39:40 1996
From: bill@skeeter.frco.com (William Hawkins)
Subject: Re: Pulled Muscles from BAs
Message-ID: <9612281741.AA13187@skeeter.frco.com>

Isn't it amazing how a person can go their whole life, and never come
up with a simple idea like

>   A. Before attemptng to put the heavy gear in the rack, run the two
>*top* screws in from the back of the rails, so the stud sticks out the front.

Thanks, Bobbi.

Regards,
Bill Hawkins

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: "Edward J. Zeranski" <ejz@nosc.mil>
Subject: RAL lives!
Message-ID: <2.2.32.19961229024135.00c09a1c@marlin.nosc.mil>

Finally got to power up the $25 hernia! Replaced the bozo wiring between pwr supply and RX, did a little soldering, and replaced a couple of small parts and it kinda works!(needs a tube and perhaps some tweaking) No major smoke or smell! It will take a while to build up some cal sheets for the log-scale tuning and get used to tuning in general but it has been a fun, though rainy, Saturday. Are there other folks out there using these things besides Bob Keys? The antenna connector was gone from the back so I replaced it with a ceramic feed thru, what was original?? Here in San Diego the low bands can be calibrated off Mexican "Norteno" stations by matching the HQ-150.

Ed Zeranski   ejz@marlin.nosc.mil, work
ezeran@cris.com   home
Wooden Boats, Tube Receivers, Rusty Old Trucks, The Good Stuff!

From boatanchors@theporch.com Sat Dec 28 12:39:40 1996
From: w7ni@teleport.com (Stan Griffiths)
Subject: Re: Scope question - CE 100V
Message-ID: <199612281012.CAA05459@kim.teleport.com>

>At 04:09 AM 12/26/96 -0800, Stan Griffiths wrote:
>>
>>I would suspect a grid to cathode short inside the 2AP1. If it is a hard
>>short, you should be able to detect it with an ohmmeter connected between
>>the appropriate CRT pins.
>
>At 11:13 AM 12/26/96 -0700, Henry van Cleef wrote:
>>
>>> The circuit is pretty much standard - B+ at 600V is run thru a resistor to
>>> the focus pot (which does adjust focus in the defective tube) and then thru
>>> another resistor to the intensity pot, the other side of which is grounded.
>>> The focus pot's wiper goes to grid #3, the intensity pot wiper to the
>>> cathode. The cathode does have the correct voltage swing (nominal 30 volts)
>>> even with the defective tube.

>>
>>I'm a bit puzzled here, because what you've described sounds like a
>>grid-cathode short (intensity control has no effect). Have you
>>measured the differential voltage between the grid and the cathode to
>>see that the grid is not swinging with the cathode. How is the grid
>>circuit wired? If it has a grid leak and a cap to unblank it, similar
>>to a conventional audio amplifier circuit, the grid could very well be
>>walking with the cathode.
>>
>>If the tube is dim with zero grid-cathode bias, it has probably been
>>run that way for some time, and sucked all the emission out of the
>>cathode, and the tube's goose has been cooked.
>>
>>If you can actually find leakage between grid and cathode---and you
>>should be able to see it with an HP-412A ohmmeter, which uses
>>microamps and has a 100 megohm range (at center scale), then you can
>>try to clear the fault. The classic method for this was to give it a
>>"shot" of a Ford (model T) coil. That might also put the CRT out of
>>business permanently as well.
>>>
>>> So what's the failure mode here? I was thining if the cathode was shorted
>>> to anything I could isolate it, but inasmuch as the volatages are correct I
>>> tend to doubt it.
>>>
>>The symptoms you've described sound as though you are not getting
>>actual bias between grid and cathode. I can't think of a failure mode
>>for this type CRT where you can vary the bias voltage but not get
>>intensity control.
>
>Ok guys, (and a couple others who responded), thanks much and this is
>becoming an interesting challenge. First of all, I took the defective tube
>and placed it in a Workman S-10A Pocketscope and had exactly the same
>symptoms.
>
>Amazingly there doesn't appear to be a short between grid #1 and the
>cathode. The voltage differential in the CE 100V is 38 volts under normal
>operation, variable by adjusting the intensity control, which as I've said
>has its wiper connected to the cathode. Also, tho I don't have an HP-type
>voltmeter, on a Beckman 310 there's no continuity between the cathode and
>grid #1, or between the cathode and the filament. Also I do have an Eico
>950B cap bridge and using the leakage test placed 500 volts between the
>cathode and the grid, and the cathode and filament and saw no leakage
>whatever. These tests were conducted both with the filament cold and hot.
>
>The control grid is connected to an electrolytic (multi-section, can't find
>the value now) going to ground, and a 1 meg resistor, the other side of
>which goes to the bias line. The control grid voltage is specified (and
>does) go to -120 on standby and 0 on transmit.

>
>My only other thought is that perhaps the cathode has become disconnected
>from the wire going to it. I've never seen this, but I haven't studied
>scope tube details. I did try resoldering the base pin.
>
>-Pete
>WB2QLL
>petef@sprynet.com

Sounds to me like you are doing everything exactly right. It also sounds
like an internal CRT problem and I think Hank gave you the standard cure for
that (the cure may be worse than the problem!) An internal "open" of the
grid element could possible act this way. I think if the cathode were open
inside the CRT rather than the grid, you would no beam and no intensity at all.

I think a new tube is the real cure for this one, Pete.

Stan w7ni@teleport.com

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: w2ec@VNET.IBM.COM
Subject: Wanted: Navy RBA receiver, RBx parts for ship restoration.
Message-ID: <199612290058.SAA26827@uro.theporch.com>

Still looking for an RBA receiver and power supply.

Also need some small parts for the RBB/RBC's:
  for front panel:
    Captive "thumbscrews" for securing panel to case
    Pull knobs, "mushroom" shaped
    Glass for frequency display window, "non-glare" type
  for rear panel:
    female power connector
  for power cable:
    two male plugs (or complete cable if you have one!)

73, Ray w2ec@vnet.ibm.com

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: Dave metz <metzd@cfw.com>
Subject: Re: Washington, Dc & Baltimore BA Haunts
Message-ID: <2.2.32.19961229035539.006d7c10@milo.cfw.com>

A

>I'm anticipting a trip to Washington, DC and Baltimore after Christmas.
>Are there any surplus or BA stores or swapmeets in the area? Also I'd
>like to visit the Smithsonian. Where would I look for its BA-type
>exhibits?
--
>
>Tom Kelly

To Tom and others

First of all, the Smithsonian is a great place especially the Air and Space Museum with its cockpit and radio room of the B17. Yes, there is the whole BC 348 bunch there. There is also a great exhibit in the American history museum showing something from the old 3 dialers to transistors. And.... if you've never seen one of those mega thousand catalin types for real, there are several in the downstairs lobby of the same building.

As far as BA haunts.... there may be others but in Baltimore, I have bought a numerous items from John Kendall who trades as Vintage Electronics   410 483 3884. (vintel@aol.com) Several months ago I passed along that he had quite a bit of Command stuff and he quickly sold all of it. I've never been to his place but it has to be about a 10 car garage or larger stacked to the ceiling. In the past he has had an HQ120,129x, presently has a Halli sx 71, test equipment, tube amps, and a couple of thousand regular old am radios. I think he is located somewhere just north of the tunnel. He puts out an occasional catalog. He usually is at the Gaithersburg hamfest and the Baltimore March one. His catalog is something like $3, well worth it and if you keep buying, he keeps sending it for free. My best purchase has to be at least 10 lbs of high wattage (10-25watt) resistors for something like $15! Admittedly, not all things were that much of a bargain be he is usually very reasonable in my opinion.

73's dave

From boatanchors@theporch.com Sat Dec 28 12:39:40 1996
From: "Bob Ragain, 303-470-2534, RAGAIN@SEDALIA.OMNES.SLB.COM"
<RAGAIN@hubvx6.sedalia.wireline.slb.com>
Subject: WD-40 usage on boatanchors
Message-ID: <961228103535.250871d8@hubvx6.sedalia.wireline.slb.com>

Hi Richard and BA'er's,

Your point is well taken on the use of WD-40 for lubricating electrical components. I have no long term experience using WD-40 for this. "Normal" tuner cleaner has been the fluid of choice until this project required a higher volume of fluid. You caught me being "cheap" again...but those 40

year old pots didn't scratch once!

Not sure who the original question about voice bandwidth (and where to find a graph of voice usage vs bandwidth) came from, so I'll copy the group. The ARRL Handbook for 1979 has a whole chapter on the subject of voice spectrum. There is a nice graph on page 14-1. All of chapter 14 is dedicated to NBVM techniques to eliminate the unused portions of the voice spectrum and "squash" the needed parts back together to narrow the bandwidth, hence Narrow Band Voice Modulation. December, 1977, QST is mentioned as a source of info and other ARRL handbooks had the same chapter.

By the way, I still have two of the NBVM boxes sold during the late '70's. The small group of people experimenting with NBVM back then gradually faded away. Are any of you still around?

Happy BA'ing,

Bob

Bob Ragain WB4ETT Littleton, CO

From boatanchors@theporch.com Sat Dec 28 12:39:40 1996
From: nielw@ix.netcom.com (Niel Wiegand)
Subject: re: Westkit BN-1
Message-ID: <199612281402.GAA00991@dfw-ix6.ix.netcom.com>

Hue, I have a Weskit BN-1A. (For those that have never seen one, the BN-1A says right on the front panel "Novice Transmitter Receiver". The BN must stand for Battery-Novice. It has one tube, a twin triode 3A5. Half is used as a regen detector and half as the xtal oscillator. Three turns of the dial tunes from 3.5 to 7.3 MHz. The 80mtr novice band is the width of the dial pointer. The entire 40mtr band (cw and phone)is a little over two widths.)

Did you actually make any contacts with one of these? Also, I would like to date mine but I've never found any magazine ads for Weskit. When/where/how did you find yours?

73, Niel - WA5VLZ

You wrote:
>
my novice rig
>here is a mighty weskit (kearny, NE) BN-1. mighty 1-watt coast-to-

>coast power. sidetone? slip off the headphones (one
>more thing to do to switch rec/trans) and lissen to
>the clicking of the key! no rf burn if you reach for the
>wrong knob!   hue miller
>

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: "David M. Nance" <dmnance@roanoke.infi.net>
Subject: WTB: Ocean Hopper
Message-ID: <32C5F60E.15F6@roanoke.infi.net>

I know this doesn't "weigh in" as a boatanchor, but I'm looking for a two (2) Knight Kit Ocean Hopper regenerative receivers. I would like one for myself and another for a friend of mine. We both had one back in the 60's.

I still have my set of plug-in coils except for the AM broadcast band so I only need one additional set of SW coils.

If someone has one they want to part with let me know.

David Nance - WB4SSE

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: "Edward J. Zeranski" <ejz@nosc.mil>
Subject: Re: WTB: Ocean Hopper
Message-ID: <2.2.32.19961229022705.00bf55dc@marlin.nosc.mil>

At 19:30 12/28/96 -0600, you wrote:
>I know this doesn't "weigh in" as a boatanchor, but I'm looking for a
>two (2) Knight Kit Ocean Hopper regenerative receivers.
>If someone has one they want to part with let me know.
>
>David Nance - WB4SSE

        This seems to be a popular little regen! I have a "Space Spanner" but have seen more references to, articles, and queries about the 'Hopper, was it a better canoeanchor/lunch hook?

Edward J Zeranski NRaD code 821   ejz@marlin.nosc.mil
619 553-2640
DSN 553-2640
FAX 553-1394

STU-III 2640

From boatanchors@theporch.com Sat Dec 28 12:39:40 1996
From: "William C. Robbins" <billrobb@net-link.net>
Subject: WTB: Roller Inductors
Message-ID: <199612281818.NAA11805@serv01.net-link.net>

This is posted for someone who does not have access to the inter-net.

He would like to buy a pair of 28-35 mh roller inductors. Please call Dan, WB0WKQ, at 515/449-3755

Bill

WA8CDU Heathkit Collector

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: "Dave Kelley" <aa7tq@primenet.com>
Subject: WTB:Drake 4 Line
Message-ID: <96Dec28.162006pst.26497@gateway.tempe.gov>

I have a buddy who just fell in love with my Drake R4B and T4XB. He is interested in buying a set of these or possibly the C line.

If you or someone you know is looking for a good home for a set of these please e-mail Mike (WG7T) at robots@juno.com and let him know what you have.

73 and Happy New Year to you all

Dave, AI7R
http://www.tempe.gov/radio

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: Mike Maloney <ac5p@ionet.net>
Subject: WTF:Knob Source for BA's
Message-ID: <199612281940.NAA05479@mail.ionet.net>

Greetings BA Gang,
Is there someone out there who has or knows someone with a LARGE stock or collection of spare knobs for BA's?

Thanks for your help, Mike ac5p@ionet.net

From boatanchors@theporch.com Sat Dec 28 23:44:43 1996
From: dr.electron@juno.com (Richard L Paton)
Subject: RE: xfmrs & power supplies
Message-ID: <19961228.121519.9439.1.dr.electron@juno.com>

When a transformer is requested and the data includes " capacitor input", how does one apply this to a given xfmr? Derating? Surge?
Humble in vintage tech,
Rich dr.electron@juno.com